

Hotels: An Overview of Energy Use and Energy Efficiency Opportunities



Energy Use in Hotels

On average, America's 47,000 hotels spend \$2,196 per available room each year on energy. This represents about 6 percent of all operating costs. Through a strategic approach to energy efficiency, a 10 percent reduction in energy consumption would have the same financial effect as increasing the average daily room rate (ADR) by \$0.62 in limited-service hotels and by \$1.35 in full-service hotels.

Energy efficiency provides hotel owners and operators cost savings that benefit the bottom line. Efficiency also improves the service of capital equipment, enhances guest comfort, and demonstrates a commitment to climate stewardship.

Energy Efficiency Opportunities

Low-Cost Measures

- > Measure and track energy performance.
- > Develop an energy team and assign responsibilities to pursue energy efficiency in all departments.
- > Review and emphasize the financial and environmental results of a preventive maintenance program for major systems and components.
- > Ensure that team members from every department are trained in the importance of energy management and basic energy-saving practices.
- > Set goals and a methodology to track and reward improvements.

Cost-Effective Investments

- > Recommission primary systems to ensure continuous efficiencies.
- > Install energy-efficient lighting systems, ENERGY STAR qualified compact fluorescent lights (CFLs), and light-emitting diode (LED) exit signs.
- > Install occupancy sensors on lighting and HVAC systems in back-of-house spaces, meeting rooms, and other low-traffic areas.

How to Talk to Hoteliers About Energy Efficiency

Guest satisfaction is the number one priority in the hospitality sector, and hotel operators are often hesitant to engage in activities that could be perceived as reducing comfort, convenience, or the overall brand experience. However, energy represents the single fastest-growing operating cost in the lodging industry. There is a well-established case for energy efficiency as a sound business practice, and expectations for hoteliers to demonstrate their climate stewardship are growing.

Improved operating income translates to higher asset value for owners. Cost reductions through energy efficiency are quantifiable and can be described using key financial metrics, such as revenue per available room (RevPAR) or the equivalent increase to the ADR.

Hotels Making a Difference:

After receiving the ENERGY STAR Partner of the Year Award in 2005 and 2006, [Marriott International's](#) company-wide continuous improvement in energy management helped the organization win the prestigious ENERGY STAR Sustained Excellence designation in 2007. In 2006 alone, Marriott was able to save almost \$6 million and reduce its greenhouse gas emissions by 70,000 tons. The program included the installation of 450,000 compact fluorescent light bulbs (CFLs), conversion of all outdoor signage to LED and fiber optic lighting, and implementation of energy- and water-efficient laundry systems. Through its reduction in energy consumption, Marriott's efforts represent a 2 percent greenhouse gas reduction per room — well on the way to the corporate goal of 6 percent savings per available room by 2010.

In 2004, the historic [Willard InterContinental](#) in Washington, DC, installed CFLs in common areas and guest rooms. According to hotel management, guest complaints of lighting quality have decreased. As a result of this upgrade, which paid for the initial investment in less than six months, the hotel is saving one million kilowatt hours and more than \$100,000 annually. By rating the property using ENERGY STAR's Portfolio Manager tool, management has been able to track whole building energy savings of 11 percent over this period.

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How to Talk to Hoteliers About Energy Efficiency (cont.)

Making these linkages is an essential part of developing a sustained approach to continuous improvements in energy and financial performance in lodging properties.

Through ENERGY STAR tools, the environmental outcomes of implementing successful efficiency programs can be tracked and demonstrated, becoming a hotelier's leading "green credential."

ENERGY STAR Offers

- Guides and manuals
- Facility benchmarking
- Training
- Institutional purchasing
- Technical support
- Emissions reporting
- Third-party recognition
- Communications strategies

ENERGY STAR Resources

Guidelines for Energy Management: Based on the successful practices of ENERGY STAR partners, these guidelines assist hoteliers in improving their energy and financial performance while distinguishing themselves as environmental leaders.

www.energystar.gov/guidelines

Portfolio Manager — Measure and Track Energy Performance: The National Energy Performance Rating Systems allows property operators to compare their energy performance to their peers, using an easy-to-understand 1 to 100 scale based on unbiased research conducted by the Environmental Protection Agency. Training on how to use the tool is available through Web seminars and downloadable pre-recorded sessions.

www.energystar.gov/benchmark

Perform Cost-Effective Building Upgrades: Plan systematic building upgrades using the 5-stage approach in EPA's Building Upgrade Manual. This online handbook offers guidance for each stage — from commissioning to plant upgrades.

www.energystar.gov/bldgmanual

Recognition for Achievements

Earn the ENERGY STAR: Buildings that rate in the top 25 percent of energy-efficient buildings in the nation may qualify for the ENERGY STAR label.

www.energystar.gov/eslabel

Become an ENERGY STAR Leader: ENERGY STAR Partners who demonstrate continuous improvement portfolio-wide, not just in individual buildings, qualify for recognition as ENERGY STAR Leaders. EPA will recognize districts that have achieved reductions of 10 percent, 20 percent, 30 percent, or more.

www.energystar.gov/leaders

Other Resources for Hotels:

The American Hotel and Lodging Association's (AH&LA) Good Earthkeeping Campaign:
http://www.ahla.com/good_earth_overview.asp

Green Lodging News:
<http://www.greenlodgingnews.com>

Hotel & Motel Management:
<http://www.hotelmotel.com/hotelmotel>

For more information on ENERGY STAR tools, resources, and recognition for hotels: www.energystar.gov/hospitality

ENERGY STAR® is a government-backed program helping businesses and individuals protect the environment through superior energy efficiency.



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